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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,485	05/31/2001	Hovhannes Ghukasyan	HPLA.005US0	8744

28661 7590 02/10/2005

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EXAMINER	
PHAM, HUNG Q	
ART UNIT	**PAPER NUMBER**
2162	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,485	GHUKASYAN ET AL.	
	Examiner	Art Unit	
	HUNG Q PHAM	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 9 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As set forth in MPEP 2106 (II) (A):

> *The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.*

> *Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application.*

Regarding claims 9 and 10, especially claim 9, the method can be implemented with a pencil, and a piece of paper. Further, the language of claim 1 raises a question as to whether the claimed method is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. § 101. Therefore, the claimed invention is non-statutory subject matter. The claim should be amended to indicate the subject matter is implemented by a computer, i.e., a computer implemented method.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation ***said folders table*** in the step of mapping. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Yeager et al. [USP 5,950,190].

Regarding claim 1, Yeager teaches a database management system (Col. 1, Lines 10-20).

- The relational database as disclosed by Yeager is categorized into five organizational levels. For example, the tables 25 and 26 shown in FIG. 1 are referred to as `Level 5` tables (Col. 9, Lines 20-35). The ***data dictionary*** of Yeager system is visualized as a listing of all the tables within a relational database and the relations between those tables and their individual columns similar to that shown in FIG. 1 (Col. 7, Line 64-Col. 8, Line 3). The ***data dictionary*** is stored in hard disk 37 (Col. 8, Lines 35-40). As shown at FIG. 8, a screenshot of the structure of a table in data dictionary is illustrated (Col. 13, Line 61-Col. 14, Line 14), wherein L5_BARCODE, VARCHAR2, 80... indicates information of tables correspond to the group of tables of FIG. 1 (FIG. 8). As seen, the ***data dictionary*** as taught by Yeager ***includes*** Level as ***identifications of related groups of tables in a database,*** L5_BARCODE, VARCHAR2, 80... as ***information of tables in said related groups, and*** table names such as TRAKVU_L5, TRAKVU_V5C of FIG. 1 as ***identifications of*** BARCODE, PARTNO, LOCATION... as ***parameters of said related groups.***

As illustrated at FIG. 21 and Col. 26, Lines 25-54, the DGUI imports new table contents through a keyword-driven batch text file. Additionally, the batch text file may also be used to add new table columns, i.e., modify the data dictionary. A portion of a sample batch text file, which may be imported into the relational database 24 by the DGUI is shown below:

```
LEVEL5
BARCODE=`1345`
PARTNO=`FE12822`
LOCATION=`HAB1.sub.-- P1.sub.-- A1`
STATUS=`100% Full`
ENDLEVEL5
LEVEL5.sub.-- CATALOG
PARTNO=`FE12822`
DESCRIPTION=`Portable Fire Extinguisher`
ENDLEVEL5.sub.—CATALOG
```

As seen, DGUI as ***a data importer receiving input from*** batch text file as ***an input file including*** `1345`, `FE12822`... as ***data to be imported into said database***, LEVEL5 as ***an indication of one of said related groups that is associated with said data***, and BARCODE, PARTNO ... as ***indications of parameters associated with said data***.

- Referring back to FIG. 21, at step 290, the DGUI reads in the table name associated with the TABLE_NAME variable, which begins each entry. For example, for the variable LEVEL5, the DGUI reads in the table name TRAKVU_L5. Next, at step 292, the DGUI reads in each line of the entry and parses each line into a keyword/column name, and the value of the keyword/column. Next, at step 294, a determination is made as to whether the keyword/column read at step 292 matches an existing column name stored within the Data Dictionary. If a match is found, the database contents are updated at step 296 (Col. 26, Line 55-Col. 27, Line 19). As seen, the DGUI as ***data importer appending*** `1345`, `FE12822`... as ***one or more portions of said data associated with*** BARCODE, PARTNO ... as ***existing parameters to*** TRAKVU_L5 as ***corresponding one or more existing tables associated with said existing parameters and having*** TRAKVU_L5C as ***tables of said one of said related groups as references***.

- If a negative determination is made at step 294, i.e., the keyword does not match an existing column in the specified table, then the user is preferably given the option at step 298 to create a new column for the specified table. If the user opts to create a new column, the DGUI generates a SQL command to make the necessary modifications to the data dictionary (Col. 27, Lines 19-26). FIG. 13 is the process initiated by a user request to access the relational database 24 following a modification to the data dictionary. The first step 152 determines the names of the database tables, which are to be edited by the user. Next, the names and attributes of each column within each of the tables are determined at step 154 (Col. 20, Lines 1-30). Yeager further discloses that the import process shown in FIG. 21 is called from within a loop so that the steps shown in FIG. 21 are followed for each complete entry within the batch text file (Col. 26, Lines 62-64). As seen, if a ***new*** column or ***parameter*** in the batch file is determined, ***data dictionary is updated*** by creating ***a new table with*** new table name as ***identifications***, ***new*** column names as ***parameters***, and attributes of the columns as information, and the import process as in FIG. 21 is looped back to ***append data associated with new parameters to a new table created for new parameters*** as discussed above. In short, the technique as discussed indicates the DGUI as ***data importer appends data associated with new parameters to a new table created for said new parameters, and updates said data dictionary to include said identifications and information of said new table and new parameters***.

Regarding claim 2, Yeager teaches all the claimed subject matters as discussed in claim 1, Yeager further discloses ***a query front-end providing a parameter tree to be displayed to users for facilitating database queries*** (FIG. 4, Col. 9, Line 63-Col. 10, Line 10), ***wherein said data dictionary further includes information for said parameter tree*** (FIG. 8), ***and said data importer further updates said information for said parameter tree to include information of said new table and new parameters*** (FIG. 13 and 14).

Regarding claim 5, Yeager teaches all the claimed subject matters as discussed in claim 1, Yeager further discloses ***data dictionary has a parameters table for storing information of parameters associated with individual of said related group of tables*** (FIG. 8).

Regarding claim 6, Yeager teaches all the claimed subject matters as discussed in claim 2, Yeager further discloses ***data dictionary has a folders table for storing information of a parameter tree to be provided to said query front-end*** (FIG. 4).

Regarding claim 7, Yeager teaches all the claimed subject matters as discussed in claim 6, Yeager further discloses ***data dictionary has a parameters table for storing information of parameters associated with individual of said related group of tables*** (FIG. 8).

Regarding claim 8, Yeager teaches all the claim subject matters as discussed in claim 7, Yeager further discloses ***data dictionary has a parameters-to-folders mapping table for***

mapping said information of parameters to corresponding information in said folders table (FIG. 4 and 6).

Regarding claim 9, Yeager teaches a method of managing database management system (Col. 1, Lines 10-20). The relational database as disclosed by Yeager is categorized into five organizational levels. For example, the tables 25 and 26 shown in FIG. 1 are referred to as `Level 5` tables (Col. 9, Lines 20-35). The ***data dictionary*** of Yeager system is visualized as a listing of all the tables within a relational database and the relations between those tables and their individual columns similar to that shown in FIG. 1 (Col. 7, Line 64-Col. 8, Line 3). The ***data dictionary*** is stored in hard disk 37 (Col. 8, Lines 35-40). As shown at FIG. 8, a screenshot of the structure of a table in data dictionary is illustrated (Col. 13, Line 61-Col. 14, Line 14), wherein L5_BARCODE, VARCHAR2, 80... indicates information of tables correspond to the group of tables of FIG. 1 (FIG. 8). As seen, the ***data dictionary*** as taught by Yeager includes Level as ***identifications of related groups of tables***, and BARCODE, PARTNO, LOCATION... as ***parameters***.

- As illustrated at FIG. 21 and Col. 26, Lines 25-54, the DGUI imports new table contents through a keyword-driven batch text file. Additionally, the batch text file may also be used to add new table columns, i.e., modify the data dictionary. A portion of a sample batch text file, which may be imported into the relational database 24 by the DGUI is shown below:

```
LEVEL5
BARCODE=`1345`
PARTNO=`FE12822`
```

```
LOCATION=`HAB1.sub.-- P1.sub.-- A1`
STATUS=`100% Full`
ENDLEVEL5
LEVEL5.sub.-- CATALOG
PARTNO=`FE12822`
DESCRIPTION=`Portable Fire Extinguisher`
ENDLEVEL5.sub.—CATALOG
```

As seen, DGUI *receiving input from* batch text file as *an input file including* `1345`, `FE12822`... as *data to be imported into said database*, LEVEL5 as *an indication of one of said related groups that is associated with said data*, and BARCODE, PARTNO ... as *indications of parameters associated with said data.*

- Referring back to FIG. 21, at step 290, the DGUI reads in the table name associated with the TABLE_NAME variable, which begins each entry. For example, for the variable LEVEL5, the DGUI reads in the table name TRAKVU_L5. Next, at step 292, the DGUI reads in each line of the entry and parses each line into a keyword/column name, and the value of the keyword/column. Next, at step 294, a determination is made as to whether the keyword/column read at step 292 matches an existing column name stored within the Data Dictionary. If a match is found, the database contents are updated at step 296 (Col. 26, Line 55-Col. 27, Line 19). As seen, *a set of existing parameters and a set of new parameters from said parameters associated with said data is formed* based on step 294, the DGUI *appends* `1345`, `FE12822`... as *one or more portions of said data associated with* BARCODE, PARTNO ... as *existing parameters to* TRAKVU_L5 as *corresponding one or more existing tables having* LEVEL5 as *related groups of tables as references in said database.*
- If a negative determination is made at step 294, i.e., the keyword does not match an existing column in the specified table, then the user is preferably given

the option at step 298 to create a new column for the specified table. If the user opts to create a new column, the DGUI generates a SQL command to make the necessary modifications to the data dictionary (Col. 27, Lines 19-26). FIG. 13 is the process initiated by a user request to access the relational database 24 following a modification to the data dictionary. The first step 152 determines the names of the database tables, which are to be edited by the user. Next, the names and attributes of each column within each of the tables are determined at step 154 (Col. 20, Lines 1-30). Yeager further discloses that the import process shown in FIG. 21 is called from within a loop so that the steps shown in FIG. 21 are followed for each complete entry within the batch text file (Col. 26, Lines 62-64). As seen, if a ***new*** column or ***parameter*** in the batch file is determined, ***data dictionary is updated*** by creating ***a new table with*** new table name as ***identifications***, ***new*** column names as ***parameters***, and attributes of the columns as information, and the import process as in FIG. 21 is looped back to ***import a remaining portion of said data associated with said set of new parameters to a new table created for said new parameters*** as discussed above. In short, the technique as discussed indicates the step of ***importing a remaining portion of said data associated with said set of new parameters to a new table created for said new parameters, and updating information in said data dictionary to include identifications and information of said new table and new parameters.***

Regarding claim 10, Yeager teaches all the claimed subject matters as discussed in claim 9, Yeager further discloses the step of ***identifying said one or more existing tables having said related group of tables as references in said database from information in said data***

dictionary linking said one or more existing tables to said existing parameters (Col. 26, Line 62-Col. 27, Line 26).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeager et al. [USP 5,950,190].

Regarding claim 3, Yeager teaches all the claimed subject matters as discussed in claim 1, but does not explicitly teach *data dictionary has a reference groups table for storing*

indications of related groups of tables, including columns for reference groups identifications and reference groups names. However, a table for storing information is a conventional structure for storing information such as the table as in FIG. 1. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use table for storing data in order to organize the database.

Regarding claim 4, Yeager teaches all the claimed subject matters as discussed in claim 1, but does not explicitly teach ***data dictionary has a references table for storing information of reference tables for individual of said related group of tables***. However, a table for storing information is a conventional structure for storing information such as the table as in FIG. 1. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use table for storing data in order to organize the database.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham
January 24, 2005